

Title (en)
SEPARATOR AND NONAQUEOUS ELECTROLYTE SECONDARY BATTERY INCLUDING THE SAME

Title (de)
SEPARATOR UND SEKUNDÄRBATTERIE MIT WASSERFREIEM ELEKTROLYT DAMIT

Title (fr)
SÉPARATEUR ET BATTERIE SECONDAIRE À ÉLECTROLYTE NON AQUEUX LE COMPRENANT

Publication
EP 4181304 A1 20230517 (EN)

Application
EP 22206366 A 20221109

Priority
JP 2021184690 A 20211112

Abstract (en)
Provided is a separator showing high antistatic property, high degassing property in winding, and high impregnating ability of a nonaqueous electrolyte after forming an electrode body. The separator disclosed here includes a base material layer of a porous resin, and a ceramic layer containing 85 mass% or more of first inorganic particles and disposed on at least one surface of the base material layer. Principal surfaces of the separator have long sides. The separator further includes an adhesive layer having portions arranged at a predetermined pitch to form a stripe pattern on at least one of the principal surfaces. The adhesive layer contains an adhesive resin and second inorganic particles. A content of the second inorganic particles in the adhesive layer is 3 mass% or more and 65 mass% or less. An angle formed by the adhesive layer and the long side of the at least one principal surface of the separator is 20° or more and 70° or less.

IPC 8 full level
H01M 50/414 (2021.01); **H01M 50/434** (2021.01); **H01M 50/446** (2021.01); **H01M 50/451** (2021.01); **H01M 50/457** (2021.01)

CPC (source: CN EP US)
H01M 10/05 (2013.01 - CN); **H01M 10/0525** (2013.01 - CN US); **H01M 50/414** (2021.01 - CN EP); **H01M 50/417** (2021.01 - US); **H01M 50/434** (2021.01 - CN EP US); **H01M 50/446** (2021.01 - CN EP); **H01M 50/451** (2021.01 - CN EP US); **H01M 50/457** (2021.01 - CN EP); **H01M 50/461** (2021.01 - CN); **H01M 50/489** (2021.01 - CN); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (applicant)
JP 5572101 B2 20140813

Citation (search report)
• [Y] EP 3817093 A1 20210505 - LG CHEMICAL LTD [KR]
• [Y] KR 20170029494 A 20170315 - TEIJIN LTD [JP]

Cited by
EP4207417A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
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DOCDB simple family (application)
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